

REMARKS

This Amendment is filed in response to the Office Action mailed Nov. 1, 2005, The Applicant respectfully requests reconsideration of the rejections presented therein. All such rejections are respectfully traversed.

Claims 1-32 are pending in the case.

No claims have been amended.

No claims have been added.

Claim Rejection - 35 U.S.C. §103

At paragraphs 1-2 of the Office Action, claims 1, 3-6, 11-17, 22-24, 27-30 and 32 were rejected under 35 U.S.C. §103(a) as obvious over Varghese et al., U.S. Patent No. 6,560,236 (hereinafter Varghese), in view of Delaney et al., U.S. Patent No. 6,937,574 (hereinafter Delaney).

The Applicant's claim 1, representative in part of the other rejected claims, sets forth (emphasis added):

1. A method for use by an intermediate network device having a plurality of interfaces for forwarding network packets among the interfaces, one or more of the interfaces being associated with one or more Virtual Local Area Network (VLAN) designations, the method comprising the steps of:

mapping each VLAN designation to a site identifier;

receiving on an inbound interface a packet having a site-local unicast destination address;

identifying the VLAN designation associated with the received packet;

utilizing the identified VLAN designation to retrieve the site identifier to which the VLAN designation is mapped;

creating a modified destination address by embedding the retrieved site identifier into the site-local unicast destination address; and rendering a forwarding decision for the received packet based on the modified destination address.

Varghese discloses a technique for dividing a large LAN into a number of virtual LANs (VLANS). In one example, Varghese discloses a bridge (*see Fig. 2, 112*) having

two link (*see Fig. 2, 114(1)*) in a first VLAN, and two links (*see Fig 2, 114(2)*) in second VLAN. *See col. 4, lines 59-64.* To configure such an arrangement, a user assigns the ports connected to the links in the first VLAN (*see Fig. 4, ports 8, 12*) a first VlanId, and the ports connected to the links in the second VLAN (*see Fig. 4, ports 9, 15*) a second VlanId. *See col. 4, line 65 to col. 5, line 6.* When packets are sent on the ports, the associated VlanId is added to the packets, either in “a specially created VlanId field” or by overwriting some non-essential field, such as the non-essential Source Service Access Point (SSAP) field or Destination Service Access Point (DSAP) field. *See col. 5, lines 62-65 and col. 6, lines 7-20.*

Delaney discloses a technique for establishing Virtual Private LANs within a network. *See col. 2, lines 16-18.* A switch maintains “a Destinations Address Association Table (DAAT)” that maps Destination Addresses (DAs) to Destination Encapsulation Addresses (DEAs). *See col. 7, lines 10-20.* Frames directed to the same DA are mapped to different DEAs if they originate from different customers. *See col. 7, lines 10-20.* When a frame is received by the switch, its DEA is determined from the DAAT, and in some cases “the frame is encapsulated by adding an addition header that includes the DEA and an Encapsulation Ingress Address (EIA)” before the frame is transmitted. *See col. 7, lines 58-67*

First, the Applicant respectfully urges that neither reference suggests the claimed “*mapping each VLAN designation to a site identifier*” and taking the VLAN designation of a packet and “*utilizing the identified VLAN designation to retrieve the site identifier to which the VLAN designation is mapped.*”

Neither reference even mentions *site identifiers*, and thus they can not possibly suggest mapping them to VLAN designations, and later utilizing VLAN designations of packets to retrieve a site identifier. A *site identifier* relates to the IPv6 concept of *sites*, which are well known in the field. The Applicant respectfully directs the Examiners attention to the background of the Application at page 4, lines 7-14 which states (emphasis added):

IPv6 also defines two types of local use or *scoped* unicast addresses: link-local unicast addresses and site-local unicast addresses. In contrast to the Aggregatable Global Unicast Addresses described above, link-local and site-local addresses are not globally unique. Instead, link-local addresses are unique only on a single link, while site-local addresses are unique only within a given site. Link-local addresses were developed to support auto-configuration, while site-local addresses were developed, at least in part, to allow computer networks that are not connected to the global Internet to nonetheless use IPv6 address schemes. *A site*, which is not rigorously defined in IPv6, is typically intended to cover a region of topology that belongs to a single organization and that is located within a particular geographic location. A link typically refers to a LAN or a bridged network.

The Applicant also respectfully directs the Examiner's attention to page 4, lines 7-14 which state (emphasis added):

Each site, moreover, may have a corresponding site identifier (ID), and the boundaries of these sites may be arranged to pass through the intermediate devices disposed within the network, including device 300.

The Office Action first suggests that the claimed *site identifier* is shown by Varughese's "VlanId." However a VLAN designation, such as a VLAN ID, is very different from a site ID. One identifies an individual VLAN, while the other typically identifies a region of topology that belongs to a single organization and that is located within a particular geographic location. *See also* Application Fig. 4, Site Table 424 (including both VLAN IDs and Site IDs).

The Office Action further suggests that the claimed *site identifier* is suggested by Delaney's Destination Address Association Table (DAAT), which maps Destination Addresses (DAs) of elements in a customers LAN to corresponding Destination Encapsulation Addresses (DEAs). Yet DAs and DEAs identifying individual network devices, not *sites* and thus may not be properly equated to the claimed *site identifier*.

Accordingly, since neither references even mentions *site identifiers*, they can not possibly make obvious, under 35 U.S.C. §103, the Applicant's claimed "*mapping each VLAN designation to a site identifier*" and taking the VLAN designation of a packet and

“utilizing the identified VLAN designation to retrieve the site identifier to which the VLAN designation is mapped.”

Second, the Applicant respectfully urges the neither reference suggests the claimed *“creating a modified destination address by embedding the retrieved site identifier into the site-local unicast destination address”* and *“rendering a forwarding decision for the received packet based on the modified destination address.”*

Neither reference discusses embedding any additional information into a **destination address**, much less embedding a site identifier, or using a modified destination address to render a forwarding decision. Varghese describes storing a VLAN ID in either its own “VlanId field” or overwriting a non-essential field, for example the Source Service Access Point (SSAP) field or the Destination Service Access Point (DSAP) field. See col. 5, lines 62-65 and col. 6, lines 7-20. No mention is made of modifying the destination address.

Similarly, Delaney does not embed any additional information into the **destination address**, much less a site identifier, nor use a modified destination address to render a forwarding decision. In contrast, Delaney instead encapsulates packets with additional headers to add information

The Applicant respectfully traverses the interpretation in the Office Action that “the frame is encapsulated by adding an addition header” as creating a modified destination address by embedding the retrieved site identifier into the site local unicast destination address.” See Office Action page 4. Adding an additional header, and not modifying a destination address, is very different than embedding information into the destination address to create a modified destination address.

Accordingly, the Applicant respectfully urges that the combination of Varghese and Delaney is legally insufficient to make obvious the present claims under 35 U.S.C. §103 because of the absence of the Applicant’s claimed novel *“creating a modified destination address by embedding the retrieved site identifier into the site-local unicast*

destination address” and “rendering a forwarding decision for the received packet based on the modified destination address.”

At paragraph 3 of the Office Action, claims 2, 20, 21, 25, and 26 and 31 were rejected under 35 U.S.C. §103(a) as obvious over Varghese, in view of Delaney, in further view of Flanders et al., U.S. Patent No. 6,172,980 (hereinafter Flanders).

The Applicant notes that claims 2, 20, 21, 25, and 26, and 31 are dependent claims that depend from independent claims that are believed to be allowable. Accordingly, these dependent claims are also believed to be allowable.

At paragraph 4 of the Office Action, claims 7, 8, 9, 18 were rejected under 35 U.S.C. §103(a) as obvious over Varghese, in view of Chang et al., U.S. Patent No. 6,6738,249 (hereinafter Chang).

At paragraph 5 of the Office Action, claims 19 was rejected under 35 U.S.C. §103(a) as obvious over Varghese, in view of Chang, in further view of Muller.

The Applicant respectfully urges these rejections are improper. Claims 7, 8, 9, 18, and 19 are dependent claims that depend from independent claims rejected over the combination of Varghese and Delaney. However, the rejection of dependent claims 7, 8, 9, 18, and 19 does not mention the Delaney reference, nor explain how the features in the base independent claims are somehow shown instead by Chang/Muller. Accordingly, the rejections are believed improper.

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.

All independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims.

The Applicant respectfully solicits favorable action.

PATENTS
112025-0461
CPOL# 79603 Seq.# 2910

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No. 03-1237.

Respectfully submitted,


James A. Blanchette
Reg. No. 51,477
CESARI AND MCKENNA, LLP
88 Black Falcon Avenue
Boston, MA 02210-2414
(617) 951-2500